

REMARKS

In the final Office Action, the Examiner rejects claims 17-21 under 35 U.S.C. § 102(e) as being anticipated by MAHESH et al. (U.S. Patent No. 6,891,858); and rejects claims 1-16 and 22-41 under 35 U.S.C. § 103(a) as unpatentable over MAHESH et al. in view of MILLET et al. (U.S. Patent No. 7,039,939). Applicant respectfully traverses these rejections.¹

By way of the present amendment, Applicant amends claims 2-16, 19-22, 24-27, 29-32, and 34-40 to improve form. No new matter has been added by way of the present amendment. Claims 1-41 are pending in the present application.

Rejection under 35 U.S.C. § 102(e) based on MAHESH et al.

Claims 17-21 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by MAHESH et al. Applicant respectfully traverses this rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference discloses every aspect of the claimed invention. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. MAHESH et al. does not disclose or suggest the combination of features recited in claims 17-21.

Independent claim 17 discloses a method of controlling transmission characteristics of cable modems. The method includes monitoring upstream transmission quality of one or more cable modems; and commanding at least one of the one or more

¹ As Applicant's remarks with respect to the Examiner's rejections overcome the rejections, Applicant's silence as to certain assertions by the Examiner in the Office Action or certain requirements that may be applicable to such assertions (e.g., whether a reference constitutes prior art, reasons for modifying a reference and/or combining references, assertions as to dependent claims, etc.) is not a concession by Applicant that such assertions are accurate or that such requirements have been met, and Applicant reserves the right to dispute these assertions/requirements in the future.

cable modems to change its transmission characteristics based on the monitored quality, including changing from a first preamble length to a second different preamble length. MAHESH et al. does not disclose or suggest this combination of features.

For example, MAHESH et al. does not disclose or suggest commanding at least one of the one or more cable modems to change its transmission characteristics based on the monitored quality, including changing from a first preamble length to a second different preamble length. The Examiner relies on Fig. 4; column 2, lines 31-58; and column 4, lines 52-63 of MAHESH et al. as allegedly disclosing this feature of claim 17 (final Office Action, pg. 3). Applicant respectfully disagrees with the Examiner's interpretation of MAHESH et al.

Figure 4 of MAHESH et al. depicts a flow chart diagram of a cable modem modulation change procedure. A cable modem first receives a new modulation profile message from a cable modem transaction service, resets the cable modem with the new profile, and causes the cable modem to transmit using the new profile (see, for example, col. 11, lines 15-22). Transmitting using a new profile does not correspond to changing from a first preamble length to a second preamble length. MAHESH et al. discloses that a modulation profile may define a number of parameters, such as modulation type and preamble (column 2, lines 54-59). Although MAHESH et al. discloses that a modulation profile may define a preamble, this section of MAHESH et al. does not disclose or suggest changing from a first preamble length to a second preamble length. Therefore, this section of MAHESH et al. does not disclose or suggest commanding at least one of the one or more cable modems to change its transmission characteristics based on the

monitored quality, including changing from a first preamble length to a second different preamble length, as recited in claim 17.

At column 2, lines 31-58, MAHESH et al. discloses:

In conventional DOCSIS systems, the CMTS may include a plurality of physically distinct line cards having appropriate hardware for communicating with cable modems in the network. Each line card is typically assigned to a separate DOCSIS domain, which is a collection of downstream and upstream channels for which a single MAC Allocation and Management protocol operates. Typically, each DOCSIS domain includes a single downstream channel and one or more upstream channels. The downstream channel is used by the CMTS to broadcast data to all cable modems (CMs) within that particular domain. Only the CMTS may transmit data on the downstream. In order to allow the cable modems of a particular DOCSIS domain to transmit data to the CMTS, the cable modems share one or more upstream channels within that domain.

Each upstream and downstream channel of the cable network uses a respective modulation profile which is manually configured at the cable Head End by a cable operator or technician. For example, at start-up or initialization of the CMTS, each upstream channel is configured to use a static or fixed modulation profile for receiving communications from the plurality of cable modems using that particular upstream channel. The modulation profile may define a number or parameters to be used by a cable modem when communicating with the CMTS such as, for example, modulation type (e.g. QPSK or QAM), FEC-t byte value (sometimes referred to as FEC strength), preamble, etc

This section of MAHESH et al. discloses that a modulation profile may define a number of parameters to be used by a cable modem when communicating with a cable modem termination system (CMTS) such as, for example, modulation type and preamble.

Although this section of MAHESH et al. discloses that a modulation profile may define a preamble, this section of MAHESH et al. does not disclose or suggest changing from a first preamble length to a second preamble length. Therefore, this section of MAHESH et al. does not disclose or suggest commanding at least one of the one or more cable modems to change its transmission characteristics based on the monitored quality, including changing from a first preamble length to a second different preamble length, as recited in claim 17.

At column 4, lines 53-65, MAHESH et al. discloses:

When the Head End detects that the channel conditions on a particular channel have deteriorated, the Head End may automatically and dynamically reconfigure that particular channel to utilize a different modulation profile that is better suited for transmitting data in light of the newly detected channel conditions. Similarly, when the Head End detects that the channel conditions of a particular channel have improved, the Head End may reconfigure the channel to use a different modulation profile which takes advantage of the improved channel conditions, and allows for more rapid transmission of data across that channel.

This section of MAHESH et al. discloses that when the Head End detects that the channel conditions on a particular channel have deteriorated, the Head End may automatically and dynamically reconfigure the particular channel to utilize a different modulation profile that is better suited for transmitting data. As noted above, MAHESH et al. discloses that a modulation profile may define a number of parameters, such a modulation type and preamble (column 2, lines 54-59). Although MAHESH et al. discloses that a modulation profile may define a preamble, this section of MAHESH et al. does not disclose or suggest changing from a first preamble length to a second preamble length. Therefore, utilizing a different modulation profile does not correspond to changing from a first preamble length to a second preamble length. Therefore, this section of MAHESH et al. does not disclose or suggest commanding at least one of the one or more cable modems to change its transmission characteristics based on the monitored quality, including changing from a first preamble length to a second different preamble length, as recited in claim 17.

For at least the foregoing reasons, Applicants submit that claim 17 is not anticipated by MAHESH et al.

Claims 18-21 depend from claim 17. Therefore, these claims are not anticipated by MAHESH et al. for at least the reasons given above with respect to claim 17.

Rejection under 35 U.S.C. § 103(a) based on MAHESH et al. and MILLET et al.

Claims 1-16 and 22-41 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over MAHESH et al. in view of MILLET et al. Applicant respectfully traverses this rejection.

Independent claim 1 recites a method of altering modem transmission characteristics, including setting a modem to transmit on a first upstream channel on a first frequency using first transmission characteristics; monitoring a quality of upstream transmissions from the modem on the first upstream channel; and setting the modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on the monitored quality. MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, do not disclose or suggest the above combination of features.

For example, MAHESH et al. and MILLET et al. do not disclose or suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1. The Examiner admits that MAHESH et al. does not disclose this feature and relies on the abstract, steps 406, 408, 410, and 412, and Fig. 6 of MILLET et al. as allegedly disclosing this feature of claim 1 (final Office Action, pg. 5). Applicant respectfully disagrees with the Examiner's interpretation of MILLET et al.

In the abstract, MILLET et al. discloses:

Methods, apparatus, and computer-readable media are disclosed for creating a virtual lookahead upstream receiver in a single physical upstream receiver in a CMTS, thereby avoiding having to dedicate an upstream receiver strictly for lookahead capability. A lookahead receiver is used to determine whether a potential alternative frequency is better than the frequency presently being used. A physical upstream receiver is assigned to operate under a set of operational parameters associated with a logical lookahead receiver during a particular time

slot. The logical receiver receives upstream data from a selected test modem using an alternative upstream frequency. It is then determined whether the alternative upstream frequency is preferable over the frequency presently being used. If so, the physical receiver is configured to operate normally under the set of operational parameters associated with the logical receiver. At this stage, all modems in a particular group, including the selected modem, hop over to the alternative frequency. The physical receiver can be divided into any number of logical receivers.

This section of MILLET et al. discloses that a logical receiver receives upstream data from a selected test modem using an alternative upstream frequency and that the physical receiver is configured to operate normally under the set of operational parameters associated with the logical receiver if the alternative frequency is preferable over the frequency presently being used. At this point, all modems in a particular group, including the selected modem, hop over to the alternative frequency. Although this section of MILLET et al. discloses transmitting on a different frequency, this section of MILLET et al. does not disclose or suggest transmitting on a second, different upstream channel. Therefore, this section of MILLET et al. does not disclose or suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1.

At step 406, MILLET et al. discloses that a MAC layer assigns a time slot to a modem selected to transmit data upstream (column 11, lines 44-48). This section of MILLET et al. does not disclose or suggest transmitting on a second, different frequency or on a second, different upstream channel. Therefore, this section of MILLET et al. does not disclose or suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1.

At step 408, MILLET et al. discloses that a physical upstream receiver U0 is assigned to be the same as logical receiver L1 at a time TS1 in which the selected modem is allowed to transmit data upstream. Thus, physical receiver U0, acting as logical receiver L1, can receive data from the modem at time TS1 (column 11, lines 53-59). Receiving data from a modem during a time slot in no way corresponds to transmitting on a second, different frequency or on a second, different upstream channel. Therefore, this section of MILLET et al. does not disclose or suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1.

At step 410, MILLET et al. discloses that the CMTS receives data on the upstream signal quality at upstream port L1 from data being sent by the selected modem (column 11, lines 60-62). Receiving data from a modem in no way corresponds to transmitting on a second, different frequency or on a second, different upstream channel. Therefore, this section of MILLET et al. does not disclose or suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1.

At step 412, MILLET et al. discloses that the upstream signal quality is compared to a threshold signal quality level. If the signal quality of the upstream band being used by the selected modem is less than the threshold, the MAC layer assigns another time slot to the selected modem. If the signal quality is above the threshold level, the cable modem is returned to physical port U0 and the logical port L1 is no longer required (column 12, lines 1-15). This section of MILLET et al. discloses sending data on the same upstream channel. Therefore, this section of MILLET et al. does not disclose or

suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1.

Fig. 6 of MILLET et al. discloses a process for switching bands in which a new port (e.g., U10) for logical receiver L1 is better than the one currently being used, U0 (column 14, lines 32-38). Assuming the signal transmission on the alternative band is better, a UCC (upstream channel change) is sent to a selected modem instructing it to return to physical port U0 and upstream channel descriptor (UCD) and MAP messages for port U10 are discontinued and the UCD of port U0 is changed to match the UCD of port U10 (column 15, lines 30-39). Therefore, this section of MILLET et al. discloses transmitting on the same upstream channel and transmitting using a different frequency. Therefore, this section of MILLET et al. does not disclose or suggest setting a modem to transmit on a second different upstream channel on a second different frequency using second transmission characteristics based on a monitored quality, as recited in claim 1.

For at least the foregoing reasons, Applicant submits that claim 1 is patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination.

Claims 2-8 depend from claim 1. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

Claims 9, 27, 30, and 33 recite features similar to, yet possibly of different scope than, features recited above with respect to claim 1. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any

reasonable combination, for at least reasons similar to the reasons given above with respect to claim 1.

Claims 10-16 depend from claim 9. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 27.

Claims 28 and 29 depend from claim 27. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 30.

Claims 31 and 32 depend from claim 30. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 9.

Claims 34-36 depend from claim 33. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 33.

Independent claim 22 discloses a cable modem termination system that includes a memory to store instructions, and a processor to execute the instructions in the memory to monitor upstream transmission quality of one or more cable modems, and instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria. MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

For example, MAHESH et al. and MILLET et al. do not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22. The Examiner admits that MAHESH et al. does not disclose this feature and relies on the abstract, steps 406, 408, 410, and 412, and Fig. 6 of MILLET et al. as allegedly disclosing this feature of claim 22 (final Office Action, pg. 7). Applicant respectfully disagrees with the Examiner's interpretation of MILLET et al.

As noted above, in the abstract, MILLET et al. discloses that a logical receiver receives upstream data from a selected test modem using an alternative upstream frequency and that the physical receiver is configured to operate normally under the set of operational parameters associated with the logical receiver if the alternative frequency is preferable over the frequency presently being used. At this point, all modems in a particular group, including the selected modem, hop over to the alternative frequency. This section of MILLET et al. has nothing to do with changing from a first time division multiplexed timeslot size to a second time division multiplexed timeslot size. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22.

As noted above, at step 406, MILLET et al. discloses that a MAC layer assigns a time slot to a modem selected to transmit data upstream (column 11, lines 44-48). This section of MILLET et al. has nothing to do with changing from a first time division multiplexed timeslot size to a second time division multiplexed timeslot size. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22.

As noted above, at step 408, MILLET et al. discloses that a physical upstream receiver U0 is assigned to be the same as logical receiver L1 at a time TS1 in which the selected modem is allowed to transmit data upstream. Thus, physical receiver U0, acting as logical receiver L1, can receive data from the modem at time TS1 (column 11, lines 53-59). Although this section of MILLET et al. discloses a time slot, this section of MILLET et al. has nothing to do with changing from a first time division multiplexed timeslot size to a second time division multiplexed timeslot size. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22.

As noted above, at step 410, MILLET et al. discloses that the CMTS receives data on the upstream signal quality at upstream port L1 from data being sent by the selected

modem (column 11, lines 60-62). This section of MILLET et al. has nothing to do with changing from a first time division multiplexed timeslot size to a second time division multiplexed timeslot size. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22.

At step 412, MILLET et al. discloses that the upstream signal quality is compared to a threshold signal quality level. If the signal quality of the upstream band being used by the selected modem is less than the threshold, the MAC layer assigns another time slot to the selected modem. If the signal quality is above the threshold level, it is considered an acceptable upstream band (column 12, lines 1-12). Assigning another time slot does not correspond to changing from a first time division multiplexed timeslot size to a second time division multiplexed timeslot size. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22.

Fig. 6 of MILLET et al. discloses a process for switching bands in which a new port (e.g., U10) for logical receiver L1 is better than the one currently being used, U0 (column 14, lines 32-38). Assuming the signal transmission on the alternative band is

better, a UCC (upstream channel change) is sent to a selected modem instructing it to return to physical port U0 and upstream channel descriptor (UCD) and MAP messages for port U10 are discontinued and the UCD of port U0 is changed to match the UCD of port U10 (column 15, lines 30-39). This section of MILLET et al. has nothing to do with changing from a first time division multiplexed timeslot size to a second time division multiplexed timeslot size. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to instruct at least one of the one or more cable modems to change its transmission characteristics, including changing from a first time division multiplexed timeslot size to a second different time division multiplexed timeslot size, when the monitored quality meets a specified criteria, as recited in claim 22.

For at least the foregoing reasons, Applicant submits that claim 22 is patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination.

Claims 23-26 depend from claim 22. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 22.

Independent claim 37 discloses a cable modem termination system, including a memory to store instructions, a communication interface to measure signal qualities of upstream transmissions associated with one or more cable modems, and a processor to execute the instructions in the memory to monitor the measured upstream signal qualities, and selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring.

MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

For example, MAHESH et al. and MILLET et al. do not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37. The Examiner admits that MAHESH et al. does not disclose this feature and relies on the abstract, steps 406, 408, 410, and 412, and Fig. 6 of MILLET et al. as allegedly disclosing this feature of claim 1 (Office Action, pp. 11-12). Applicant respectfully disagrees with the Examiner's interpretation of MILLET et al.

As noted above, in the abstract, MILLET et al. discloses that a logical receiver receives upstream data from a selected test modem using an alternative upstream frequency and that the physical receiver is configured to operate normally under the set of operational parameters associated with the logical receiver if the alternative frequency is preferable over the frequency presently being used. At this point, all modems in a particular group, including the selected modem, hop over to the alternative frequency. This section of MILLET et al. discloses changing frequency, but does not disclose switching between different virtual upstream channels. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37.

As noted above, at step 406, MILLET et al. discloses that a MAC layer assigns a time slot to a modem selected to transmit data upstream (column 11, lines 44-48). This section of MILLET et al. does not disclose or suggest switching between different virtual upstream channels. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37.

As noted above, at step 408, MILLET et al. discloses that a physical upstream receiver U0 is assigned to be the same as logical receiver L1 at a time TS1 in which the selected modem is allowed to transmit data upstream. Thus, physical receiver U0, acting as logical receiver L1, can receive data from the modem at time TS1 (column 11, lines 53-59). This section of MILLET et al. does not disclose or suggest switching between different virtual upstream channels. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37.

As noted above, at step 410, MILLET et al. discloses that the CMTS receives data on the upstream signal quality at upstream port L1 from data being sent by the selected modem (column 11, lines 60-62). This section of MILLET et al. does not disclose or suggest switching between different virtual upstream channels. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch

between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37.

At step 412, MILLET et al. discloses that the upstream signal quality is compared to a threshold signal quality level. If the signal quality of the upstream band being used by the selected modem is less than the threshold, the MAC layer assigns another time slot to the selected modem. If the signal quality is above the threshold level, the cable modem is returned to physical port U0 and the logical port L1 is no longer required (column 12, lines 1-15). This section of MILLET et al. discloses sending data using the same upstream channel. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37.

Fig. 6 of MILLET et al. discloses a process for switching bands in which a new port (e.g., U10) for logical receiver L1 is better than the one currently being used, U0 (column 14, lines 32-38). Assuming the signal transmission on the alternative band is better, a UCC (upstream channel change) is sent to a selected modem instructing it to return to physical port U0 and upstream channel descriptor (UCD) and MAP messages for port U10 are discontinued and the UCD of port U0 is changed to match the UCD of port U10 (column 15, lines 30-39). This section of MILLET et al. discloses sending data using the same upstream channel. Therefore, this section of MILLET et al. does not disclose or suggest a processor to execute the instructions in the memory to selectively command at least one of the one or more cable modems to switch between different virtual upstream channels based on the signal quality monitoring, as recited in claim 37.

For at least the foregoing reasons, Applicant submits that claim 37 is patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination.

Claims 38-40 depend from claim 37. Therefore, these claims are patentable over MAHESH et al. and MILLET et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 37.

Independent claim 41 recites features similar to, yet possibly of different scope than, features recited above with regard to claim 22. Therefore, claim 41 is patentable over MAHESH et al. and MILLET et al. for at least reasons similar to the reasons given above with respect to claim 22.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise which could be eliminated through discussions with Applicant's representative, the Examiner is invited to contact the undersigned by telephone in order to expedite prosecution of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & HARRITY, LLP

By: /Meagan S. Walling, Reg. No. 60,112/
Meagan S. Walling
Registration No. 60,112

Date: March 23, 2009

11350 Random Hills Road
Suite 600
Fairfax, Virginia 22030
(571) 432-0800
Customer Number: 44987